# SIEMENS

# Network ID Camera

# Installation and Startup

NIC2-2 (with DICOM)

English

# Installation and Setup Manual

**Publication No. 201101**



# NIC2-2
# Network ID Camera

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# 1.  General

This manual describes how to install and setup the Network ID Camera herein called NIC. This includes anything from installation to setting-up what the picture printed on the film should look like, which language for the display, to how it should communicate with a booking system.

This manual is written for software version 3.32 and it is assumed that language is set to English. Note that you may select language to English which causes all texts to be displayed in English, but still select country to the country you are in to get country-dependent information, like date format and PID number, correct.

# 2.  Installation

## 2.1  Unpacking

Check that the cardboard box is undamaged and has no holes or deep scratches. Any damage must be reported to the transport company or the supplier whenever it can be suspected that the camera has been damaged during transport.

The box contains the camera, an operator's manual in local language and the power cord. The keyboard should be equipped with the country dependent keycaps.

## 2.2  Installation Details

After unpacking the camera it should be placed on a steady table or shelf. If the camera is operated in mobile units like mammography screening buses, or where there is a risk of the camera falling down, it should be fastened to the surface with two screws mounted from the inside of the camera through two holes in the bottom plate with suitable screws.

The power cord should be connected to the  power receptacle on the backside of the camera and to wall outlet.

**No voltage selection is necessary, the camera can be operated at any voltage from 100 to 250 VAC 50/60Hz.**

Power receptacle
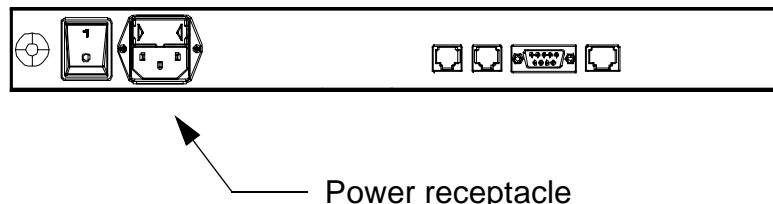
**Warning**

The Network ID Camera is classified as a Medical Device and fulfils EN 60950.

According to European Safety Regulations for Medical Equipments, the following conditions must be fulfiled:

- if the camera is operated within a distance of 1.5 m from the patient, it must be connected to the equipotential equalization device ($E^2D$).
  $E^2D$ with cable must be provided by the customer.
  The purpose of the $E^2D$ is to ensure that all medical and other equipments are connected to the same ground potential.

- if the camera is connected to a Medical Equipment according to EN 60601-1 ( e.g. safety ground or data connections) the safety standard EN 60601-1-1 has to be met and documented.

E2D plug - Connector for the cable coming from the equipotential bushbar.

# 3   Setup

This section describes how the set-up of the camera is done. It assumes that the operator is familiar with the camera.

## 3.1   Getting into setup mode

Make sure the camera displays the main window which is the window that comes up after the initial screen with the Triacon logo. The window shows:

```
Date:26.10.2005              Time:11:31:34


    Selected picture     : Win1


Manual      Booking    Memory    Picture
```

To get into setup mode, press Shift F4 (the right soft-key while holding any of the two shift keys down). A new window will appear asking for a password.

The Network ID Camera will remember the password for about 15 minutes and will not ask you for the password again, if you exit and then enter set-up mode again within 15 minutes. This is to eliminate the need to re-type the password every time you leave setup mode to test a configuration.

### 3.1.1   Resetting to customer default

Get into setup mode as described in chapter 3.1. Then press Ctrl-E. This will reload the standard setup and restart the camera.

### 3.1.2   Main configuration window

Get into configuration mode as described in chapter 3.1.

```
Setup                        Ver 3.32
Picture settings
Bookinglist configuration
Communication param
NICLan configuration
Settings
Lock                              Exit
```

Use the up- and down arrow keys to move the highlight bar up and down. Select item by pressing ENTER.

The soft-keys are used as follows:

Lock        Lock the set-up with a password. Will make the Network ID Camera ask for password the next time set-up is entered. An alternative to LOCK is to wait for the password time-out.

Exit        Exit set-up mode.

Picture settings

            Here you can set details of how and what will be printed on the film.

`Bookinglist configuration`

>   Here all settings for manual entry of data to bookinglist is configured.

`Communication param`

>   Here all settings regarding the communication between the Network ID Camera and the equipment connected to any of the four communication ports can be changed.

`NICLan configuration`

>   Here all settings related to a TCP/IP communication is defined.

`Settings`   Here all settings of a more general nature can be changed, e.g. which language the Network ID Camera speaks.

`Sensor adjustment`

>   This selection will show a picture showing the status of the three cassette sensors. For detailed information, please refer to the Service manual.

`Test functions`

>   Here parameters regarding the opening of the cassette window can be set. For detailed information, please refer to the Service Manual.
>   **NOTE: This should only be done by trained service personnel.**

`Serial analyzer`

>   Here all data, received on HOST or NET serial communication port, is listed. For detailed information, please refer to the Network Installation Manual.

`Remote control`

>   Here the down-/up- load of a set-up is performed.

`System logger`

>   Here are listed errors and abnormal situations. For detailed information, please refer to the Service Manual.

`Setup Manager`

>   This entry is only used by the production personal.

## 3.2  Picture settings

Choosing this selection will present five new alternatives

```
Picture settings
Picture  Win1:
Settings Win1:
Picture  Win2:
Settings Win2:
Menues
           Previous    Next      Exit
```

Here the layout of the picture printed on the film is defined. Two different pictures can be defined, "Win1" and "Win2". This means that it is possible to have two different configurations, one under `Picture Win1` and another under `Picture Win2`. The picture names are editable to any name corresponding to their use.

### 3.2.1   Some frequently used words

`Field`       This is what a unit of information is called when it is displayed on the picture. A field contains, for example, the name of a patient or the current date or current time. A picture is made of a number of fields, and each field can be placed anywhere within the picture. A field also contains information about how the information should appear on the picture, for example the size of the text.

`Pixel`       A pixel is a small dot of which all characters are built on the display. Position on the display is given in pixels. To be able to calculate how much information will fit into the window, you must know the following.

The C1 window is 64 pixels high and 240 pixels wide.

The C1N window is 48 pixels high and 240 pixels wide.

A character is 16 pixels high and 12 pixels wide, if the large font is use.

A character is 12 pixels high and 9 pixels wide, if the medium font is use.

A character is 8 pixels high and 6 pixels wide, if the small font is used.

`Font`        The appearance of the text on the film/display is determined by the font selected. Currently three fonts are available, LARGE, MEDIUM and SMALL.

### 3.2.2   Picture, Win1/Win2

If Picture Win1 or Win2 is selected, a fieldlist will appear.

| No | Field | Length | Row,Col | |
|----|-------|--------|---------|---|
| 01: | B-date | 10 | 0,  0 | |
| 02: | Name | 20 | 12,  0 | |
| 03: | PID | 11 | 15,174 | |
| 04: | Date | 10 | 0,160 | |
| 05: | Time | 5 | 0,104 | |
| Place | New | | Remove | Exit |

This fieldlist shows all fields that are defined for selected picture. The up and down keys can be used to step through all fields. The window will automatically scroll to display more items.

To add a new item, place the cursor on the position where you like to add a field and press the NEW soft-key. This will make the Network ID Camera duplicate the field at the cursor and you can then edit one of the copies as you wish. The maximum numbers of fields are 50 for each window.

To remove an item, place the cursor on the field you want to delete, and press the REMOVE soft-key. This will immediately remove the selected item.

To move a field (i.e. give it another position on the picture printed on the film) press the PLACE soft-key. This will bring up another window where the selected field is displayed as a white box representing the size of the field, and all other fields are displayed as other strings of characters selected to represent the type of the field (D for date field N for name field). The current field can now be moved by the four arrow keys. If shift+arrow key is pressed the field will step 6 pixels left/right and 8 pixels up/down. When a good position is found just press the enter key to leave the window. Experience has shown that this is a good method of finding out where to place the field. It is, however, difficult to find the exact position, as the fields are often placed one or two pixels off. Therefore, the optimal procedure is to place all fields using this method, and then to check all positions manually and correct them by entering their positions by numbers as described below under "Editing a field".

### 3.2.2.1  Editing a field

To change a parameter of a field, place the cursor on the field and press the enter key. This will open a new window:

```
┌─────────────────────────────────────────────┐
│ Field definition                   Field:02  │
├─────────────────────────────────────────────┤
│ Type: Name           Leghth: 20              │
│ Row:   12            Column:  0              │
│                                              │
│                      Font: Medium            │
│                                              │
├─────────────────────────────────────────────┤
│              Previous  Next      Save        │
└─────────────────────────────────────────────┘
```

Type          tells what kind of information is displayed in this field. The following types are available.

Name - The name of the patient. The user may enter any information. This field must not be empty.

PID - The PID number of the patient. When entering the PID number, only the format that is used in the country for which the camera is configured is allowed. If a check-digit exist it is also checked, and the user is forced to either correct the PID number or explicitly tell that the number is not valid by pressing the Shift-F1 key.

Number - An integer. Allows only numeric characters to entered.

Text - Any text in any format can be entered.

AP/PA - Anterior or Posterior. This tells, whether the X-ray picture is taken with the X-ray tube in front or behind the patient. Apart from displaying it in the film, the information is used by the Network ID Camera to mirror the picture when the picture is taken PA.

Menu - A menu allows the user a selection from a number of predefined text strings. Five different menus can be defined, and each of them can have 16 alternatives. In this window you only have to chose which of the five menus you will use. When you leave the type field (press enter) a new field will appear in the window, called menu. Here the number of the menu to use can be entered.

F-Text - Fixed text. This is used to enter text that will always be displayed like the name of the hospital. When you leave the type field (press enter) a new field called "Fixed text" will appear at the bottom of the window, allowing you to enter the text to display.

H-line - Horizontal line. Will display a horizontal line on the picture. Take care not to put the line behind any other field because these other fields may overwrite the line. When you leave the type field (press enter) a new field called "Width" will appear at the bottom of the window, allowing you to enter the width of the line.

V-line - Vertical line. Details see H-line.

Date - Print current date. When the type field is left a new entry will appear called format. Here the date format can be selected. If the format you want is not available it can still be created by using three different date fields, one each for year, month, and day with separating characters inserted as F-text fields. Note that months can be displayed either as a two-digit number (MM) or three-letter text (MMM).

`Time` - Prints current time. Functions the same way as the DATE field.

`COMM` - Communication. This field is used if the Network ID Camera is connected to other equipment that sends data to the Network ID Camera, for example an X-ray unit that can send information about kV and mAs. When the type field is left a new entry will appear called Comm. This item will present a list of the type of information available. The type of information highly depends on the kind of equipment connected. Please refer to chapter "3.4.2 Communication parameters Channel: AUX1" on page 14 and the Network Installation Manual for more information.

`P-text` - Persistent text. Works as a text field but with the difference that the text inserted here will remain unchanged until it is edited even if the patient data window is closed and then opened again.

`B-date` - The patient data of birth. Only digits are allowed to be entered. The date format depends on the country setting.

`Special` - This field consist of some special function like calculation of the patient age and to generate special characters. If the AGE function is to be used a B-date field must also be defined. This because the age is calculated from the B-date field and the built-in real time clock.

`Technol` - Technologist initial. Works as a P-text field but with the difference that this field is linked to menu no.1. If menu no.1 and a technologist initial are defined, an 'Auto sequence' can be used.

`H-text` - Text field dedicated for the hospital name. Works as a F-text field but is detected by, and editable from, the NIC Manager program.

| | |
|---|---|
| `Length` | The length of the field. |
| `Row` | The pixel row where the upper edge of the characters of the field should be displayed. |
| `Column` | The pixel column where the left side of the character should be placed. |
| `Font` | The size of the character. Select between large (h=16, w=12), medium (h=12, w=9) or small (h=8, w=6). |
| `Menu` | This field only appears when the field type is Menu. Enter the number of the menu to be used. Please refer to "3.2.4 Menus" on page 9 for details. |
| `F-text` | Fixed text. This field only appears when the field type is F-text. Enter the text to be displayed. The maximum numbers of F-texts are 30 divided among the two windows. |
| `Format` | This field only appears when the field type is date or time. See Date above for more information. |
| `Comm` | Communication item. This field presents a list with the information that is sent from equipment connected to the Network ID Camera. The kind of information highly depends on the kind of equipment connected. Please refer to "3.4.2 Communication parameters Channel: AUX1" on page 14 and Network Installation Manual. |
| `Width` | This field only appears when the field type is V-line or H-line. See H-line above for more information |
| `Type` | This field only appears when the field type is special. See special above for more information |

### 3.2.3 Settings Win1/Win2

If this entry is selected, the following will be displayed

```
Settings
Status   :      Used   Text     : Normal
Exposure:      100ms   Location: Bottom
                       Vert adj:  0
Name:                  Def proj: AP

              Previous   Next      Save
```

The cursor is located at "Status" and can be moved between the different settings by pressing up- and down-arrow keys. If the softkeys Previous and Next are visible it is two or more predefined values that can be selected by pressing the corresponding function keys F2 and F3.

The following settings can be performed:

Status       Toggle between Used/Not used (i.e. enable/disable the picture). If one picture is switched to "Not used" the other one will automatically be switched to "Used". A "Not used" picture can not be accessed by the operator. Factory default is Used.

Exposure     Basic exposure time in milliseconds. A value between 10 and 65535 can be set. Factory default is 100ms.

The actual exposure time is the basic exposure time set in this window multiplied by a factor determined by the exposure correction set in the exposure window that is opened from the patient data window. The correction factor is:

| 1   | 2   | 3    | 4    | 5 | 6    | 7    | 8    | 9 |
|-----|-----|------|------|---|------|------|------|---|
| 0.5 | 0.6 | 0.71 | 0.84 | 1 | 1.19 | 1.44 | 1.68 | 2 |

Name         The name of this picture. Can be edited to any name with a maximum length of 15 characters. Factory default is "Win1" and "Win2".

Text         Toggle between Normal/Inverted. Determine whether the picture should show white text on black background or black text on white background. Factory default is Normal.

Location     Toggle between Bottom/Top. Determine whether the picture should be printed on bottom or top of the film. Factory default is Bottom.

**NOTE!** If a window is set-up for a MIN-R2 cassette bottom marking and then is changed to top marking the lower 16 pixel-lines of the image will be placed outside the cassette window. This means that the whole image must be moved 16 pixel-lines up, field by field, to fit the MIN-R2 cassette window. If a Standard C1 cassette is used, no adjustments is needed when swapping from bottom to top marking.

Vert adj     Offset between operator- and exposure display. The picture which will be printed on the film can be adjusted down. Maximum adjustment is 32 pixel-lines. Factory default is 0.

Def proj     Setting if AP or PA projection should be default. Even if there is no AP/PA field defined, the picture will be mirrored according to this setting.

### 3.2.4    Menus

Menus can be defined here. A menu is a type of field where the user can select from a set of predefined texts. Five different menus can be defined. Each of them can have 16 different selections. Any menu can be used any number of times by either Win1 or Win2 picture, or both.

When "Menus" is selected from the window described in chapter 3.2 the following window is displayed

```
No Len Alternative
1:   4   SIN,DX,MIKT
2:
3:
4:
5:
          New len            Exit
```

Here menu 1 is defined. It has a length of 4 and contains the alternatives SIN, DX and MIKT. To create a new menu, move the cursor to line, for example No. 2, and press the F2-key. A new window will appear asking you for the number of characters of the longest alternative in the list. This may be a number between 1 and 8.  After entering an appropriate value the following window appears

```
No Proj Alternative
01:        "_      "
02:        "       "
03:        "       "
04:        "       "
05:        "       "
AP/PA      Previous  Next    Save
```

Now you can enter the text for the alternatives. Keep in mind that the last alternative entered must not be a blank, because the program cannot see the difference between a blank alternative and no alternative at all. Instead it is better to put the blank alternative at the first place, because the first alternative is selected by default. If an alternative is longer than allowed by the length set, it will simply be cut to the proper length when the save key is pressed.

A projection can be set for each alternative. It will change the AP/PA setting to the AP/PA setting set for the menu item. The Proj can be toggled Off/AP/PA by pressing the F1 softkey.

### 3.2.5    Auto sequence

If a connected mammography X-ray stand does not support the view value, the so-called "Auto Sequence" can be used. This means that the technologist does not need to enter the view for each film marking manually.

Three things have to be defined to get this working, the view items, the "Technol" field and finally the auto sequence for each technologist which is done in normal operational mode.

The view items is defined in "Menu 1". Goto "Menues" as described in "3.2.4 Menus" and fill in wanted view parameters. Maximum 16 items can be entered. Ex.

RCC, LCC, RMLO, LMLO, RML, LML, RLM, LLM, RXCCL, LXCCL, RAT, ID, CV and TAN.

Note that first item is "Blank", this because first item is default.

```
No Proj Alternative
01:        "        "
02:        "RCC   "
03:        "LCC   "
04:        "RMLO  "
05:        "LMLO  "
AP/PA      Previous    Next       Save
```

Next step is to define the "Technol" field as described in "3.2.2 Picture, Win1/Win2" on page 5.

To define an auto sequence the NIC must be set in normal operation mode. From the main window, press SHIFT+F3 to enter the "Technologist setup".

```
Technologist set-up
00: "LEK   " RCC     LCC     LMLO    RMLO
02: "        " -----   -----   -----   -----
03  "        " -----   -----   -----   -----
04: "        " -----   -----   -----   -----
05: "        " -----   -----   -----   -----
           Previous    Next      Exit
```

Here is a technologist initial "LEK" with the autosequence "RCC, LCC, LMLO and RMLO defined. Use the up- /down arrow keys to select a new row and enter a initial. Press ENTER to move the cursor to the first item in the sequence, use the F2- and F3 key to select a view. Press ENTER again will move the cursor the the next item. Maximum 20 initials/auto sequences can be defined.

To test an auto sequence. Enter the patient data window, fill in patient data and enter a defined technologist initial in the 'Technol' field, e.g. 'LEK'. This will bring up the first item defined for the initial LEK. Insert a cassette into the NIC slot and make an exposure, i.e. flash a film, will change the view to next defined value, from RCC to LCC, a new exposure from LCC to LMLO and so on.

```
Beatle, Judy          14:32   09.11.2005
01585112      23.06.1955

(LEK)  (RCC)


                                    Exit
```

Technol field    Menu field

## 3.3  Bookinglist configuration

Here the configuration of the internal bookinglist is made. Choosing this selection will present three new alternatives.

```
Bookinglist configuration
Settings
Define input field
Link field to patient window


            Previous    Next        Exit
```

If a booking- or RIS-system is to be used to download patient data to the booking list it is only one thing to be set here. Under settings "kind of input" must be defined. All other settings regarding the communication protocol and patient data settings are made under section "Communication parameters", please refer to "3.4 Communication param" on page 12.

### 3.3.1  Settings

```
Settings
Kind of input                HOST
Default sortorder            NAME
Erase list at power interrupt  YES


            Previous    Next        Save
```

The cursor is located at "Kind of input" and can be moved between the different settings by pressing up- and down-arrow keys. With the softkeys Previous and Next the values can be selected by pressing the corresponding function keys F2 and F3.

The following settings can be performed:

Kind of input

> Toggle between HOST/MANUAL. Determine whether the data is downloaded from a host system or if it shall be manually inserted. Default setting is HOST.

Default sortorder

> Toggle between NAME/PID. Determine whether the booking list shall be sorted by name or the personal identity number. Default setting is NAME.

Erase list at power interrupt

> Toggle between Yes/No. If set to Yes the booking list will be erased every time the Network ID Camera is powered down. If set to No the booking list will remain unchanged after a power interrupt. Default setting is Yes.

### 3.3.2    Define input fields

```
No Field   Len  Label
01:PID      11  "PID        "
02:NAME     20  "Name       "
03:B-DATE   10  "Birth      "
04:UNUSED   10  "           "
05:UNUSED   10  "
            Previous    Next       Save
```

Maximum five entries can be defined. Field types available are; PID, NAME, B-DATE and TEXT. The maximum number of characters to enter in each field must be set, this is done in the "Len"-column. A label for each field can be defined, here can any name be entered with  maximum eight characters.

Ex.  The definitions above will look like this for the operator while in "Manual data entry to booking list".

```
Bookinglist            250 free    261005
PID:_
Name:
Birth:


Exit                                Save
```

### 3.3.3    Link field to patient window

This window is used to set-up a translation table between a TEXT-field defined under 'Define input fields' and the field number in the Win1 and Win2 window of the Network ID Camera.

```
Scr   Win1   Win2
00:    0      0
01:    3      0
02:    0      0
03:    0      0
04:    0      0
       Win1       Win2       Save
```

Use F2 and F3 keys to change between Win1 and Win2 columns.

Ex.  The B-date field defined in chapter 3.3.2 'Define input fields'  shall be linked to field no. 3 in chapter 3.2.2 'Picture Win1/Win2'.  We need to enter the number three in column Win1, row no. 02, see picture above.

## 3.4  Communication param

Selecting this item will present a window where the communication channels of the Network ID Camera can be configured. This window works slightly different from the previous windows: instead of presenting a sub-menu where the item to configure is selected, function keys are used to change what has to be  configured. This scheme seemed better suited in this situation where the user often quickly wants to switch between channels. Apart from that, there is a protocol-dependent configuration window for each channel, which is opened

from each channel configuration window by a function key. When the Communication parameters window is open the channel selected is displayed in the upper right corner of the window. To select another channel, press the Channel (F1) soft-key. To configure a parameter of the selected protocol press the Shift Protocol (Shift-F1) soft-key. Note that not all protocols have a protocol set-up associated.

This chapter does not cover all details of the Network ID Camera communication. For more information please refer to the Network Installation Manual.

### 3.4.1   Communication parameters Channel: HOST

In this window the communication channel used to download patient data from a host computer is configured.

**NOTE!**  If the text "Manual bookinglist is enabled" is visible the data input is expected to be manually. To change this setting please refer to chapter ”3.3.1 Settings” on page 11.

```
┌─────────────────────────────────────────────────────┐
│ Communication parameters Channel:HOST                │
├─────────────────────────────────────────────────────┤
│ Speed          9600                                  │
│ Parity         NONE    Groupname                     │
│ Databits       8 bits Protocol     DIRECT            │
│ Connection     RS-232                                │
│                                                      │
│                                                      │
├──────────┬──────────┬──────────┬──────────┬──────────┤
│ Channel  │ Previous │ Next     │ Save     │          │
└──────────┴──────────┴──────────┴──────────┴──────────┘
```

Move between the different settings by pressing up- and down arrow keys. Use the Previous (F2) and Next (F3) keys to toggle between the alternatives.

Speed         Set the speed of the channel, 300, 600, 1200, 2400, 4800, 9600, 19200, 38400 or 57600. Factory default is 9600.

Parity        Set the parity used by the channel, NONE, EVEN or ODD. Factory default is NONE.

Databits     Set the number of bits used by the channel, 7 or 8 bits. Factory default is 8 bits.

Connection Selects where the host computer is connected.
RS-232 means that the host computer is connected to the 9pin DB connector labelled HOST, used for serial poit-to-point communication.
RS-422 means that the host computer is connected to the RJ-45 connector labelled NET, used for serial multi-drop communication.
Factory default is RS-232.

Groupname   Sometimes several cameras are connected in parallel which means that all cameras will receive patent data for all patients. Setting groupname will give the camera a name, so that the camera will only received data addressed to this name.

Protocol     Here the protocol is selected. The following alternative are available:

2010B -    Kodak 2010 compatible protocol with STX/ETX as if connected to the 2010 communication box. B means connected to BOX.

2010D -    Kodak 2010 compatible protocol without STX/ETX as if connected to a host computer instead of the 2010 network. D means Direct to host without box.

DIRECT - Network ID Camera direct protocol.

DOWNLOAD-Network ID Camera download protocol.

SLP100 - Protocol for printout to a label printer.

MAGNCARD -Protocol for magnetic card reader.

For more information, please read Network Installation Manual.

Char.tbl    Only active for the Nordic countries.
Select which character table to use. A UNIX computer or a PC running MS-DOS or Windows use different coding for national characters like the Swedish ÅÄÖ for example.

AUTO - Fortunately, there are mostly no conflicts between the codes used in the different character sets, which means that the Network ID Camera can apply the translation scheme for all character sets at the same time without any conflicts. This is AUTO.

7bit - In some cases the characters []{}\| are used for national characters. The 7bit setting will translate these characters. The translation depends on the country setting.

IBM - This is the PC/MS-DOS codepage 850 character set.

WIN - This is the MS-WINDOWS character set.

### 3.4.1.1 Protocol set-up

Select Protocol (Shift-F1) when DIRECT- or DOWNLOAD protocol is selected. This will bring up the protocol set-up for the protocol.

This window is used to set-up a translation table between a field number used in the communication protocol and the field number in the Win1 and Win2 window of the Network ID Camera. Use the up and down arrows to move to the field above and below and use the F2 and F3 key to change between the Win1 and Win2 columns. Note that 15 fields are available. They appear by pressing the down arrow when you are at the bottom line. For more detailed description please refer to the Network Installation Manual.

| Scr | Win1 | Win2 | | |
|-----|------|------|------|------|
| 00: | 0 | 0 | | |
| 01: | 0 | 0 | | |
| 02: | 0 | 0 | | |
| 03: | 0 | 0 | | |
| 04: | 0 | 0 | | |
| | Win1 | Win2 | Save |

### 3.4.2  Communication parameters Channel: AUX1

In this window the auxiliary communication channel no. 1 is configured. This channel is dedicated for communication with a X-ray stand.

| Communication parameters Channel:AUX1 | | | |
|------|------|------|------|
| Speed | 9600 | | |
| Parity | NONE | | |
| Databits | 8 bits Protocol | NONE | |
| | | | |
| Channel | Previous | Next | Save |

Move between the different settings by pressing up- and down arrow keys. Use the Previous (F2) and Next (F3) keys to toggle between the alternatives.

Speed   Set the speed of the channel, 300, 600, 1200, 2400, 4800, 9600, 19200, 38400 or 57600. Factory default is 9600.

Parity   Set the parity used by the channel, NONE, EVEN or ODD. Factory default is NONE.

Databits  Set the number of bits used by the channel, 7 or 8 bits. Factory default is 8 bits.

Protocol  Here the protocol is selected. Available alternatives are:

   NONE -   The channel is not used.

   MMAT3000 - Used by Siemens Mammomat® 1000/3000.

   MMAT300 - Used by Siemens Mammomat® 300.

   BALANCE - Used by Siemens BALANCE.

   PLANMED - Used by Planmed Models Classic, Sophie and Maxview.

   SENOGRAPH - Used by Senographe Models DMR, DMRV2 and Senix.

   SENO800T - Used by Senographe Model T800.

   I-IMAGING - Used by Instrumentarium Models Alfa, Diamond and Performa

   LORAD -  Used by Lorad Model IV.

   GXDP-P - Selects the General XRAY Data Protocol with poll function.

   GXDP-NP - Selects the General XRAY Data Protocol without poll function.

For more information, please refer to the 'Network Installation Manual'.

### 3.4.2.1  Protocol set-up SIEMENS Mammomat® 3000

Pressing Shift Protocol (Shift F1) when the MMAT3000 protocol is selected will bring up the protocol set-up for the SIEMENS Mammomat® 3000 protocol..

```
Define text for Mammomat 3000
Focus     SF          LF
Anode     W           Mo
Filter    Rh          Mo
Grid      No grid     Grid

          0 Text    1 Text    Save
```

This window is used to define a number of text strings. The Mammomat® 3000 sends a few parameters as 0 and 1, whereas they should be presented as texts instead. This window is used to define those texts. For more detailed information, please refer to the Mammomat® 3000 manual.

Each string may be up to 8 characters long. Use the up and down arrows to go to the row below or above, and use "0 text"- and "1 Text" soft-keys to select column.

Creating the picture that will be printed on the film is done in the same way as usual selecting the COMM field type.

NOTE! The communication protocol has to be set before setting up the picture, otherwise the COMM field will display NONE.

Example

We want to create a COMM field that shall display the FOCUS. Create a new field and under fielddefinition select Type COMM. The Mammomat® 3000 is sending ether 0 or 1 as the FOCUS parameter and the Network ID Camera is translating it to a text according to the protocol set-up above. In this case the texts are SF for 0 and LF for 1. With reference to this settings, the length should be set to 2 and Comm to FOCUS. This means that we have to define the length of this COMM field to two. Select Comm FOCUS will link the focus data to this field.

```
Fielddefinition                    Field:01
Type: Comm              Length:  2
Row:    56              Column:108


Comm: Focus                 Font: Small


            Previous  │ Next   │ Save
```

The field+ data do not include the unit (kV, mAs etc.). To add this, a F-text field with the appropriate text has to be inserted after or before the COMM field. Create a new field and under fielddefinition select Type F-text. Enter values for the row and column to place this field at a position of your preference. Hint, use the Place function to position fields, see chapter 3.4.2 'Picture Win1/Win2'. Enter appropriate text under Fixed text.

```
Fielddefinition                    Field:02
Type: F-text
Row:    56              Column: 78


Fixed text:                 Font: Small
Focus
                                   │ Save
```

These fielddefinitions will give us the text "Focus" followed by the "FOCUS"-value at the center bottom of the patient data window.

### 3.4.2.2 Protocol set-up SIEMENS Mammomat® 300

```
Define text for Mammomat 300
Small focus: SF
Large focus: LF




                                   │ Save
```

This window is used to define the focus text string. The Mammomat® 300 sends this parameter as 0 and 1,  whereas it should be presented as text instead. This window is used to define this text. For more detailed information, please refer to the Mammomat® 300 manual.

The string may be up to 8 characters long. Use the up and down arrows to go to the row below or above and enter appropriate text.

Creating the picture that will be printed on the film is done in the same way as usual selecting the COMM field type.

NOTE! The communication protocol has to be set before setting up the picture, otherwise the COMM field will display NONE.

Example

We want to create a COMM field that shall display the kV. Create a new field and under field-definition select Type COMM. According to the Siemens Mammomat® 300 protocol the length of the kV value is five. This means that we have to define the length of this COMM field to five. Select Comm kV will link the kV data to this field.

NOTE! SIEMENS Mammomat® 300 is sending also the type together with the value, e.g. '25 kV'..

```
┌─────────────────────────────────────────────┐
│ Fielddefinition                     Field:01 │
├─────────────────────────────────────────────┤
│ Type: Comm           Length:  5             │
│ Row:   56            Column:108             │
│                                             │
│ Comm: kV             Font: Small            │
│                                             │
├──────────┬──────────┬──────────┬────────────┤
│          │ Previous │ Next     │ Save       │
└──────────┴──────────┴──────────┴────────────┘
```

### 3.4.2.3  Protocol set-up SIEMENS Balance

No set-up is made for this protocol. The data input has the correct format which means that no translations are needed.

Creating the picture that will be printed on the film is done in the same way as usual selecting the COMM field type.

NOTE! The communication protocol has to be set before setting up the picture, otherwise the COMM field will display NONE.

Example

We want to create a COMM field that shall display the kV. Create a new field and under field-definition select Type COMM. According to the Siemens Balance protocol the length of the kV value is six. This means that we have to define the length of this COMM field to six. Select Comm kV will link the kV data to this field.

NOTE! SIEMENS Balance is sending also the type together with the value, e.g. '12.3kV'..

```
┌─────────────────────────────────────────────┐
│ Fielddefinition                     Field:01 │
├─────────────────────────────────────────────┤
│ Type: Comm           Length:  6             │
│ Row:   56            Column:108             │
│                                             │
│ Comm: kV             Font: Small            │
│                                             │
├──────────┬──────────┬──────────┬────────────┤
│          │ Previous │ Next     │ Save       │
└──────────┴──────────┴──────────┴────────────┘
```

### 3.4.2.4  Protocol set-up PLANMED

No set-up is made for this protocol. The data input has the correct format which means that no translations are needed.

Creating the picture that will be printed on the film is done in the same way as usual selecting the COMM field type.

NOTE! The communication protocol has to be set before setting up the picture, otherwise the COMM field will display NONE.

Example

We want to create a COMM field that shall display the kV. Create a new field and under field-definition select Type COMM. According to the Planmed protocol the length of the kV value is two. This means that we have to define the length of this COMM field to two. Select Comm kV will link the kV data to this field.

```
Fielddefinition                    Field:01
Type: Comm              Length:  2
Row:   56               Column:108

Comm: kV                Font: Small

              Previous   Next      Save
```

The field data do not include the unit (kV, mAs etc.). To add that, an F-text field with the appropriate text has to be inserted after the COMM field. Create a new field and under field-definition select Type F-text. The F-text should be on the same row as the COMM field and it should start at column 120 (The COMM field starts at column 108 and has a length of 4 character, a small font character is 6 pixels wide, this gives us that the start position of the F-text field should be 108 + 2 x 6 = 120). Hint, use the Place function to position fields, see chapter 3.4.2 'Picture Win1/Win2'.

An appropriate text is entered under Fixed text, in this example "kV".

```
Fielddefinition                    Field:02
Type: F-text
Row:   56               Column:120

Fixed text:             Font: Small
kV
                                  Save
```

These fielddefinitions will give us the "kV"-value followed by its unit at the center bottom of the patient data window.

### 3.4.2.5  Protocol set-up I-IMAGING

No set-up is made for this protocol. The data input has the correct format which means that no translations are needed.

Creating the picture that will be printed on the film is done in the same way as usual selecting the COMM field type. The communication protocol has to be set before setting up the picture, otherwise the COMM field will display NONE. Now, select which data this COMM field should display. One COMM field for each exposure data must be created.

NOTE! All supported Instrumentarium stand is sending also the type together with the value, e.g. "25kV".

Example

We want to create a COMM field that shall display the kV. Create a new field and under field-definition select Type COMM. According to the Instrumentarium protocol the length of the kV value is four. This means that we have to define the length of this COMM field to four. Select "Comm: kV" will link the kV data to this field.

```
Fielddefinition                    Field:01
Type: Comm            Length:   4
Row:    56            Column:108

Comm:   kV            Font:  Small

             Previous   Next        Save
```

These fielddefinitions will give us the "kV"-value followed by its unit at the center bottom of the patient data window.

### 3.4.2.6  Protocol set-up LORAD

No set-up is made for this protocol. The data input has the correct format which means that no translations are needed.

Creating the picture that will be printed on the film is done in the same way as usual selecting the COMM field type. NOTE! The communication protocol has to be set before setting up the picture, otherwise the COMM field will display NONE. Now, select which data this COMM field should display. One COMM field for each exposure data must be created.

Note that the data sent from a LORAD stand includes also the type, e.g. "25kV".

Example

We want to create a COMM field that shall display the kV. Create a new field and under field-definition select Type COMM. According to the LORAD protocol the length of the kV value is four. This means that we have to define the length of this COMM field to four. Select Comm kV will link the kV data to this field.

```
Fielddefinition                    Field:01
Type: Comm            Length:   4
Row:    56            Column:108

Comm:   kV            Font:  Small

             Previous   Next        Save
```

This fielddefinition will give us the "kV"-value included its unit at the center bottom of the patient data window.

### 3.4.2.7  Protocol set-up GE Medical System Senographe

Select Protocol (Shift-F1) when the SENOGRAP or SENO800T protocol is selected. This will bring up the protocol set-up for the GE Medical System Senographe.

```
Define text for GE Senographe
Mode        AOP        AEC        Manual
Sub mode    STD        CTS        DOSE
Focus       SF         LF
Track       RH         MO
Filter      RH         AL         MO
            Left       Right      Save
```

This window is used to define a number of text strings. The GE Medical System Senographe sends a few parameters as 0 and 1, whereas they should be presented as texts instead. This window is used to define those texts. For more detailed information, please refer to the GE Medical System Senographe manual.

Each string may be up to 8 characters long. Use the up and down arrows to go to the row below or above, and use Left- and Right soft-keys to select column.

Creating the picture that will be printed on the film is done in the same way as usual selecting the COMM field type. NOTE! The communication protocol has to be set before setting up the picture, otherwise the COMM field will display NONE.

Example

We want to create a COMM field that shall display the MODE. Create a new field and under fielddefinition select Type COMM. The Senographe is sending 0, 1 or 2 as the MODE parameter and the Network ID Camera is translating it to a text according to the protocol set-up above. In this case the texts are AOP for 0, AEC for 1 and Manual for 2. With reference to this settings, the length should be set to 6 and Comm to MODE. This means that we have to define the length of this COMM field to six characters maximum. Select Comm MODE will link the Mode data to this field.

```
Fielddefinition                       Field:01
Type: Comm              Length:  4
Row:   56               Column:108

Comm:  Mode                    Font: Small

            Previous    Next       Save
```

The field data do not include the unit (kV, mAs etc.). To add that, an F-text field with the appropriate text has to be inserted after the COMM field. Create a new field and under fielddefinition select Type F-text. Enter values for the row and column to place this field at a position of your preference. Hint, use the Place function to position fields, see chapter 3.4.2 'Picture Win1/Win2'. Enter appropriate text under Fixed text.

```
Fielddefinition                       Field:02
Type: F-text
Row:   56               Column: 84

Fixed text:             Font: Small
Mode
                                       Save
```

These fielddefinitions will give us the text "Mode" followed by the "MODE"-value at the center bottom of the patient data window.

### 3.4.2.8  Protocol set-up GXDP

Select GXDP-P or GXDP-NP protocol depending on whether the polling function is to be used or not, refer to the Network Installation Manual.

No further set-up is made for this protocol. The data input has the format: "comm field number: value" there the comm field number is corresponding to the comm field number defined in the picture and the value is the value which shall be displayed in the picture.

The manufacturer of the XRAY equipment should present a documentation specifying which data is representing by which number and maximum length of each item. Example:

| Number | Length | Description |
|--------|--------|-------------|
| 0 | 2 | KV |
| 1 | 4 | mAs |
| 2 | 2 | Anode (Rh/Mo) |

This means that the following data string is sent from the XRAY-unit:

```
"0:14;1: 2.4;2:Mo".
```

The value "14" will be placed in communication field number zero, the value "2.4" in field number one, text "Mo" in field number two.

Creating the picture that will be printed on the film is done in the same way as usual selecting the COMM field type. NOTE! The communication protocol has to be set before setting up the picture, otherwise the COMM field will display NONE. Now, select which data (i.e. number) this COMM field should display. One COMM field for each exposure data must be created.

Example

We want to create a COMM field that shall display the "mAs". Create a new field and under fielddefinition select Type COMM. With reference to the table above  the length should be set to 4 and Comm to 1.

```
Fielddefinition                        Field:01
Type: Comm            Length:   4
Row:    56            Column:108

Comm:  1              Font: Small

               Previous  Next       Save
```

The field data do not include the unit (kV, mAs etc.). To add that, an F-text field with the appropriate text has to be inserted after the COMM field. Create a new field and under field-definition select Type F-text. The F-text should be on the same row as the COMM field and it should start at column 132 (The COMM field starts at column 108 and has a length of 4 character, a small font character is 6 pixels wide, this gives us that the start position of the F-text field should be 108 + 4 x 6=132). Hint, use the Place function to position fields, see chapter 3.4.2 'Picture Win1/Win2'.

An appropriate text is entered under Fixed text, in this example "mAs".

```
Fielddefinition                      Field:02
Type: F-text
Row:   56              Column:132

Fixed text:           Font: Small
mAs
                                     Save
```

These fielddefinitions will give us the "mAs"-value followed by its unit at the center bottom of the patient data window.

### 3.4.3   Communication parameters Channel: AUX2

In this window the auxiliary communication channel no. 2 is configured. This channel is used for different purposes.

```
Communication parameters Channel: AUX2
Speed          9600
Parity         NONE
Databits     8 bits  Protocol     NONE


Channel   Previous   Next     Save
```

Move between the different settings by pressing up- and down arrow keys. Use the Previous (F2) and Next (F3) keys to toggle between the alternatives.

Speed       Set the speed of the channel, 300, 600, 1200, 2400, 4800, 9600, 19200 or 38400. Factory default is 9600.

Parity      Set the parity used by the channel, NONE, EVEN or ODD. Factory default is NONE.

Databits    Set the number of bits used by the channel, 7 or 8 bits. Factory default is 8 bits.

Protocol    Here the protocol is selected. Available alternatives are:

NONE -      The channel is not used.

SLP100 -    Protocol for printout to a label printer.

MAGNCARD  - Protocol for magnetic card reader.

For more information, please refer to the 'Network Installation Manual'.

## 3.5 NICLan configuration

When entering this selection the ID Camrera will try to connect to the NICLan.

! Even if it is possible to change some settings without any NICLan Module con-
nencted, it is not recommended.

If the FTP function is activated but no NICLan Module is connected there is a
risk of an errorious behaviour, e.g. error messages pops-up or, in worst case,
the ID Camera stops working.

- If no response from the NICLan, a message "NICLan not detected" will appear on the
display. Check the cable between NIC and NICLan and verify that the NICLan is powe-
red, the red LED to the left of the CompactFlash card on the NICLan Module is on
(steady or blink).

- If the NIC detects a NICLan the following is displayed:

```
         NICLan Detected!
   Version    : 5.12
   ID         : 014B79
   Free Memory: 15912960
      Enter to continue!
```

Version          - Current firmware version loaded in the NICLan Module.

ID               - The NICLan Module unique ID no.

Free memory   - Available memory on the CompactFlash card, in bytes.

Press Enter to continue. This will display a list of different entries where all settings are made
for communication via the NICLan Module.

```
NICLan configuration
NICLan Mode
TCP/IP
DICOM
CF Files

                                Exit
```

Use the up- and down arrow keys to move the highlight bar up and down. Select item by
pressing ENTER.

### 3.5.1    NICLan Mode

```
NICLan Mode settings
Dicom  : Disabled     FTP      :Disabled
NICLan : 014B79       Protocol :Download
Licence: 0000-0000    Exp.coll :Disabled
                      Mem.full :Stop
Group  :
                                      Exit
```

Move between the different settings by pressing up- and down arrow keys. Use the Previous (F2) and Next (F3) keys to toggle between the alternatives. Press F4-key when done.

> **!**  If the Dicom selection is set to "Enable" a valid Licence key MUST be entered.
> If not, an error message will appear when trying to leave this window.
>
> To be able to exit this window, make sure correct Licence key value is entered
> or set Dicom to "Disabled"

DICOM       Activates the DICOM protocol. If activated a valid Licence key must be entered.

NICLan      Unique key generated by the NICLan Module.

Licence     Licens key for DICOM.

Group       Filter. Name entered here will be compared with "GroupeName" in Download booking data string sent from the NICLan Module to the NIC2-2. Ref. "TCP/IP FTP Communication NICLan" specification.

FTP         Activates the FTP function.

Protocol    Selects how to handle received patient data. For details, please refer to the Network Installation Manual.
            Download =   Patient data to the internal bookinglist. Mandatory if DICOM.
            Direct =     Patient data direct to the exposure window.

Exp.coll    Activates the "exposure save" function. All patient- and exposure-data available in the ID Camera are stored on the CompactFlash card in the NICLan Module when a film is marked.

Mem.full    Action when out of memory for the "Exp. Coll" function.
            Stop =       Not possible to mark a film until stored exposure data is collected.
            Overwrite =New exposure data will overwrite already stored data.

> **!**  When DICOM and/or FTP are activated, the HOST channel of the NIC will automatically be set to communicate with the NICLan Module through the NET connector. The selection "HOST" under "Setup\Communication param" will not be selectable.

### 3.5.2 TCP/IP

```
NICLan TCP/IP settings
Use DHCP : Yes          Name: NIC2-2
IP-number: 0.0.0.0
Mask     : 0.0.0.0
Gateway  : 0.0.0.0
DNS      : 0.0.0.0
                                     Exit
```

Move between the different settings by pressing up- and down arrow keys. Use the Previous (F2) and Next (F3) keys to toggle between the alternatives. Press F4-key when done.

Use DHCP      If used - leave IP-number, Mask, Gateway and DNS empty (0.0.0.0).

IP-number     The NICLan Module IP-address.

Mask          The Subnet mask IP-address.

Gateway       The Gateway IP-address.

DNS           The Nameserver IP-address.

Name          NetName. Must NOT be 'Blank'.

### 3.5.3 FTP

```
NICLan FTP settings

Username : ftp
Password : ftp
Port     : 21

                                     Exit
```

Move between the different settings by pressing up- and down arrow keys. Use the Previous (F2) and Next (F3) keys to toggle between the alternatives. Press F4-key when done.

Username      Used for opening a FTP connection between a HOST system and the NICLan Module.

Password      Used for opening a FTP connection between a HOST system and the NICLan Module.

Port          FTP port.

### 3.5.4   DICOM

```
NICLan DICOM settings
HOST IP  : 0.0.0.0
Port     : 0
CalledAE : -
CallingAE: -
StationAE: -
Down                                  Exit
```

Press F1 "Down" to open next page.

```
NICLan DICOM settings
Dicom Timeout : 10   s
Window poll   : -1/+3 hours
Poll interval : 5   m  Timeout: 5   m
Window search : -1 /+1   days
Search timeout: 10 s
Up                                    Exit
```

Move between the different settings by pressing up- and down arrow keys. Use the Previous (F2) and Next (F3) keys to toggle between the alternatives. Press F4-key when done.

HOST IP             DICOM server IP-address. IP no. or name if DNS is used.
                    Max. name length, 28 characters.

Port                DICOM SCP port number.

CalledAE            SCU AE-title. Max. length, 16 characters.

CallingAE           SCP AE-title. Max. length, 16 characters.

StationAE           Name entered here will be linked to Dicom tag 0040:0001 as default.
                     Max. length, 16 characters.

Dicom Timeout       Timeout if no response from the DICOM server. In seconds.

Window poll         Sets the time window from where patient data should be received when
                    the bookinglist is updated. In hours.
                    Ex. Current time is 10.00 and Window poll is set to -1/+1 h, means that
                    all patients booked between 9.00 and 11.00 will be received.

Poll intervall      Sets the frequency of the bookinglist update. In minutes.

Timeout             Max. time for the DICOM server to send worklist. In minutes.
                    NOTE! If "Poll timeout" > "Poll interval" means that the
                    "Poll timeout" = "Poll interval".

Window search       Sets the time window from where patient data should be received when
                    a manual search is made. In days

Search timeout      Max. time for the DICOM server to send a manual search result.
                    In seconds.

### 3.5.4.1  DICOM Tags

Press SHIFT+F2 from the 'NICLan DICOM settings' window to open the DICOM tag editor.

```
NICLan DICOM Tags settings
01: N 0010,0010 1^2/1, 2
02: I 0010,0020
03: B 0010,0030
04: 1 0010,2110
05: Q 0040,0100
                                     Exit
```

Move the highlight bar up and down using the arrow keys.

Press Shift+F1   to edit a tag.

Press Shift+F2   to inset a new tag. Note that the new tag will get the line number which is highlighted when "Insert" is pressed. All tags below will be shifted down one step.

Press Shift+F3   to remove highlighted tag. All tags below will be shifted up one step.

Press F4         to exit this window.

A maximum of 20 tags can be defined. Default values are:

01:   N     0010,0010  1^2/1, 2

02:   I     0010,0020

03:   B     0010,0030

04:   1     0010,2110

05:   Q     0040,0100

06:   L     0040,0001

07:   D     0040,0002

08:   T     0040,0003

09:   C     0000,0000

10:   S     FFFE,E000

N     Name. From this tag the name will be read. The value field is used to tell how to build the name tag from the name parts during the search and how to build the name fields N1 to N4 from the five parts of the DICOM NA type when processing the reply. The string consists of one prefix and one to four parts where each part represents N1 to N4. The prefix is separated from the other parts by a slash.

Example: 1^2/4 1|2, 3

The prefix is used to build the name item for the query from the name fields 1 and 2 in the search window of the NIC2-2. Each digit is replaced by the content of the corresponding name field. All other characters are copied directly to the name item.The other fields are used to build the name fields 1 to 4 from the reply. Each part is separated by a vertical bar '|'. Within each part, a digit will be replaced by the text in the corresponding part of the DICOM NA field while the characters between the digits will be used as separators between the name parts. If some name part is empty, only the separator following the previous non-empty name part shall be copied to the name field. Neither shall the separators after the last non-empty name part be copied to the name field. This shall ensure that in situations where some name parts are empty, separators shall never appear in the beginning or end of the string or that two separators shall appear after each other without any name part them between.

I     Patient ID

B    Birthdate

1-9  These tags will be available to the window setup as field number 1 to 9. The value field will be used in the C-FIND REQUEST.

Q    Sequence. When receiving an item with this group, element the length part will be ignored since it otherwise would cause all included tags to be jumped over. When creating the DICOM request an item of this type will be created, followed by an item start item (FFFE,E000). The sequence is supposed to be closed with a C item when all items within the sequence has been defined.

L    Lab. A value entered in the StationAE field will be linked to this tag.

D    Date

T    Time

C    Close sequence. This will generate one item end and one sequence end item.

S    Skip. Intended for grouping tags that should be ignored when processing data received from a DICOM server.

### 3.5.4.2  Edit a Tag

Move the highlighted bar to the tag you want to edit and press Shift+F1.

```
Edit DICOM Tag


    N 0010,0010 1^2/1, 2

Use: Fn-8 for '^' and Fn-9 for '|'
If the keys are missing
                                    Exit
```

The name tag has a value field where two separators are used, vertical bar '|' and carrot '^'. These characters are not present on all keyboard layouts, but can always be generated by pressing Fn+8 for carrot and Fn+9 for vertical bar.

### 3.5.5   CF Files

```
NICLan CF Save and Load file
Save Loggfile
Load Setup
Save Setup



                                    Exit
```

Move between the different settings by pressing up- and down arrow keys. Use the Previous (F2) and Next (F3) keys to toggle between the alternatives. Press F4-key when done.

`Save Loggfile` Saving ID Camera system log file to the CompactFlash card.

`Load Setup`    Loading a saved setup from the CompactFlash card.

`Save Setup`    Saving current setup to the CompactFlash card.

## 3.6  Settings

Selecting this item will present a window where some configurations that do not fit within the other items are gathered.

```
Settings
Language      ENGLAND
Country       ENGLAND
Cursor        LINE
Erase bookinglist at power interrupt Yes
Exposuredata Optional           Fade Yes
           Previous   Next      Exit
```

Use the up and down arrows to move the cursor between the settings, and use Previous and Next soft-keys to select option.

Language        Selects the language the Network ID Camera will speak. Available are; England, Iceland, Germany, France, Spain, Portugal, Holland, Italy, Sweden, Denmark, Norway and Finland. Factory default is 'ENGLAND'.

Country         will select country-depending settings like date format, PID number format. Available are; England, Iceland, Germany, France, Spain, Portugal, Holland, Italy, Schweiz, Belgium, USA, Canada, Sweden, Denmark, Norway and Finland. Factory default is 'ENGLAND'.
                The country and language settings are separated because there are countries where more than one language is common, but where the date format and PID number are the same. Canada and Switzerland are two examples.

Cursor          Selects how the cursor should appear on the display. The cursor can be selected as line or block. Place the cursor at "LINE" position to select line or block Factory default is 'LINE'.

Erase bookinglist at power interrupt

                This setting defines, whether the booking list downloaded from a host computer should be erased or retained when the power is switched off. Note that the setting will be changed by toggling between the words Erase and Retain at the beginning of the sentence. Factory default is 'Yes'.

Exposure data

                This setting defines, whether the film may be exposed when no exposure data has been received from an X-ray unit. The setting will be changed by toggling between the words Optional and Mandatory. Factory default is 'Optional'.

Fade            This setting is a compensation for light loss at the left- and right edges. should be set to 'No' if an optical filter is used. Factory default is 'Yes'.

## 3.7  Remote control

Selecting this item will present a window where the up- and download of a set-up is performed.

```
┌──────────────────────────────────────────────────┐
│ Remote control        NICLan not connected        │
│                                                    │
│                                                    │
│              Connect to: AUX1                      │
│                   Speed: 38400                     │
│                                                    │
├──────────────┬──────────────┬──────────┬──────────┤
│ Connect      │ Previous     │ Next     │ Exit     │
└──────────────┴──────────────┴──────────┴──────────┘
```

Use the up and down arrows to move the cursor between the settings, and use Previous and Next soft-keys to select option.

`Connect to` Selects which communication port to use, HOST or AUX1. Default is AUX1.

`Speed` Selects the baudrate for the data transmission, 300, 600, 1200, 2400, 4800,9600,19200, 38400 or 57600. Default is 38400.

For up- and download setup's the following equipment are required.

* A PC compatible computer with a standard RS232 serial interface.

* A pin-to-pin cable with a female 9-pin DSUB on one end and a male 9-pin DSUB on the other end.

* The software, NICManager, runs under WINDOWS 98/ME and WINDOWS 2000/XP. The NICManager is a freeware program and can be downloaded from Triacon's homepage.

### 3.7.1   Save and Load a Set-up

To save or load a set-up the following must be performed:

* Connect a PC to the Network ID Camera's AUX1 or HOST connector.

* Start up the 'NICManager' program and make sure that all settings are correct, please refer to the program help file.

* Enter "Remote control" on the Network ID Camera and select communication port and speed.

* Press F1 "Connect", a text "Waiting" appear on the display. The camera is now ready for a transmission session.

  Start the transmission from the PC.

* When done, press F4 on the Network ID Camera to exit remote mode.

  **NOTE**
  Before a setup is loaded to the Network ID Camera the current setup will be erased. If download is interrupted for some reason a new download must be performed. If there is problems to download a set-up, even at lower speed, the setup should manually be erased. This since the partially loaded setup may be inconsistent causing the camera to behave incorrectly. To manually erase a setup (i.e. resetting to customer default), please refer to "3.1.1 Resetting to customer default" on page 3.

# 4.  Upgrading the firmware

The controlling firmware is stored in a FLASH memory. To update this firmware the following equipment are required:

- A PC compatible computer with a standard RS232 serial interface.
- A pin-to-pin cable with a female 9-pin DSUB on one end and a male 9-pin DSUB on the other end.
- The software, NICManager, runs under WINDOWS 98/ME and WINDOWS 2000/XP. The NICManager is a freeware program and can be required from Triacon or downloaded from Triacon's homepage.

## 4.1  Download the firmware

Before starting the download it can be wise to save the setup to the PC as it may happen that downloading new firmware causes the setup to be erased. How to save a set-up, please refer to chapter 3.6.

Connect the PC to the camera. The communication cable should be connected to either HOST or AUX1 on the camera and the other end either COM1 or COM2 on the PC.

Prepare the camera for a download session by switching it off, press down the P key and hold it down while switching the camera on again. Now the operator display should look like this.

```
NIC2-2 Bootprogram Version 2.12
```

From the NICManager program - start the NIC Firmware update session.

When the update is done the Network ID Camera will restart automaticly with the new firmware running.

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# 5.  Error Messages

Although all error messages are plain text and self explaining, some guidelines on how to react and handle on these will be appropriate. The error message will disappears when any key is pressed.

The following is a list of all error messages while in set-up mode:

## 5.1  Illegal value

An erroneous value has been entered. The value of the length and position of a field has an upper limit.

**Action:**        Enter correct value.

## 5.2  The adjustment may be max 32

The vertical adjustment has a limit of 32 line-pixels.

**Action:**        If there is a need for a greater adjustment than 32 pixel-lines or a negative adjustment (move the image upwards) the whole picture must be moved manually, field by field.

## 5.3  Out of storage for FTEXT

Maximum numbers of F-texts are 30. These can be distributed between the two windows, C1 and C1N, after one's own preference.

**Action:**        Use F-texts more efficiently. If there is two F-texts on the same line it is possible to merge them. The F-text limit is number of F-text not the total number of F-text characters.

## 5.4  Length must be between 1 and 8

A Menu-text can be from one up to eight characters long.

**Action:**        Enter correct value. To exit without entering any value, press ESC-key.

## 5.5  Communication error

An interference of a setup up-/download has occurred.

**Action:** Select a lower speed and restart the communication session.

## 5.6  Unknown programming error

**Action:**        Restart the camera by switching it off and then on again.
              **Note!** Changes made in set-up may not be saved.

## 5.7  Wrong Dicom Licence Code!

The Dicom protocol is activated and none or an invalid licence key number has been entered.

**Action:**        Enter correct licence key or set "Dicom" to Disabled.

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